3 - Service Software Instructions

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Service Software

Phoenix

Phoenix is the new generation Service Software. It has been designed to meet the challenges in servicing modern cellular phone technology.

The Phoenix program has been built using component architecture. This means that the actual program is small and most of the program's functionality is divided into dynamically loaded modules (DLLs).

Supported Operating Systems

Windows 98, 2000, ME and NT 4.0 (SP4) and XP.

Hardware requirements for using Phoenix

Minimum:
Processor 233 MHz, RAM memory 64 MB, Disk space 100 MB.

Recommended for Windows 2000:
Processor 700 MHz, RAM memory 512 MB, Disk space 50-150 MB.

Introduction

This section briefly describes how to install the Phoenix software and includes some basic information on how to use the program. For more detailed information, please refer to Phoenix's **Help** files. Each feature in Phoenix has its own Help function, which can be activated while running the program.

Press the *F1* key or the feature's Help button to activate a Help file.

Installing Phoenix

1. Download the latest Phoenix release. Please contact your regional After Market Services point for information on where to download the latest release.
   Download and read the release notes which have useful information on the software version you are using.

2. Download the latest Data Packages for the products you will be using.

3. Before you start installing the program, check that the dongle is attached to parallel port. Contact your supervisor in order to obtain a suitable dongle.
   Administrator rights (Windows 2000, NT or XP only) are required in order to be able to install Phoenix.

4. Install Phoenix by executing the Phoenix installation package and follow the instructions on the screen.
   Initially the setup files are extracted into the file system.

Note: If the setup files are already extracted (left in the file system from previous installation) "Overwrite Protection" dialog appears. Always click "Yes to All" to overwrite the existing setup files.

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5 The installation checks that the latest supported dongle driver version is installed. The dongle driver is installed if there is no previous installation of the dongle driver or if the installed dongle driver is older than the latest supported version.

Note: If the dongle driver is installed during installation, you need to reboot your PC and restart the installation after reboot.

Program files are stored under *C:\Program Files\Nokia\Phoenix* (default).

6 Install the data package by executing the installation package and follow the instructions on the screen.
The data packages will create product specific directories under the installation directory.
Data files are stored under *C:\Program Files\Nokia\Phoenix* (default).

Uninstalling Phoenix

If you need to remove Phoenix Service Software from your computer:

1 Make sure that the dongle is attached (unregistration).

2 Go to the Control Panel and select Add/Remove Programs.

3 Select NHL-10 Change/Remove.

4 Click OK to remove the application

You may have to reboot your PC after uninstallation.

Note: If you have different product packages installed, the components are uninstalled only if they are not included in other product packages.

Data Packages

Data Packages (DP) is a name for a helpful feature in the Phoenix software. This type of feature provides a flexible way of distributing and installing Phoenix and its data files.

All product-specific data is separated from the program code and installed separately. This means that the installation is performed in at least two steps.

Each product will have its own Data Package (DP). The FPS-8 flashing equipment also has its own package.

Starting a session

Concepts

In the Phoenix context, *Product* means the cellular phone attached to a PC. More specifically, it is a particular type of phone.

Connection means the type of cable used to attach the phone to the port to which the other end of the cable is attached.

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Selecting a product

Many of Phoenix's features are product-specific. It is, therefore, mandatory to choose the product you will be working on at the beginning of the session.

Select the menu item *File - Open Product.* You will be presented with a list of available products.

After the product selection, you will see an additional menu item on the main menu. If you take a look at the available menu items, you will see that their number has increased.

Selecting a connection

The connection defines the cable and the communications port that will be used when connecting to the phone.

In case the connection is wrong, you need to select a correct one.

1 Choose *File -> Manage Connections*.

2 Select the correct connection. Press the Arrow up key so that the correct connection becomes the first on the list.

3 Press *Apply* and close the window.

Using components

When working with Phoenix, each task generally has its own component that will perform the task. The first thing, therefore, is to open the desired component.

Opening a component means that you open a tool window within Phoenix. When this window is opened, Phoenix also opens a toolbar for it and adds component-specific menu items in the **View** menu.

Using profiles

A Profile is a useful feature in Phoenix. Product, connection and currently open components can be stored into a permanent storage (a disk file called profile, *.nmp) for later retrieval.

Opening and saving profiles is done via menu commands found in the **File** menu. Select *Open Profile* and *Save Profile*.

Since profiles are stored into a disk file with the user-defined name, there can be multiple profiles for different repeated tasks.

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SW update flashing setup

FPS-8 Flash setup

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The following equipment is required for NHL-10 AMS SW update, when connecting NHL-10 to PC with FPS-8:

Item	Description	Type	Code
1	Docking station adapter	DA-2 (use with JBV-1)	0770500
1a	Point of Sales flash loading adapter	SF-2	0770506
2	Power cable	PCS-1	0730012
3	Power cable	FLC-2	0730185
4	Modular cable	XCS-4	0730178
5	Flash prommer box sales pack	FPS-8	0080321
6	Printer cable	AXP-8, incl in FPS-8 sales pack	
7	D9 – D9 cable	AXS-4, incl in FPS-8 sales pack	0730090
8	Software protection key	PKD-1	0750018
9	AC Charger,	ACF-8 incl in FPS-8 sales pack	0680032
10	SRAM Module (3 pcs needed inside FPS-8)	SF12	0080346 (Code includes one SRAM module)

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POS Flash concept

The following equipment is required for NHL-10 AMS SW update, at point of sale when connecting NHL-10 to PC with FLS-4:

Item	Description	Type	Code
1	Point of Sales flash loading adapter	SF-2	0770506
2	Service cable	XCS-1	0730218
3	FLS-4S sates pack for E & A	FLS-4S	0080541
4	FLS-4S sates pack for APAC	FLS-4S	0080542
5	FLS-4S sates pack for US	FLS-4S	0080543

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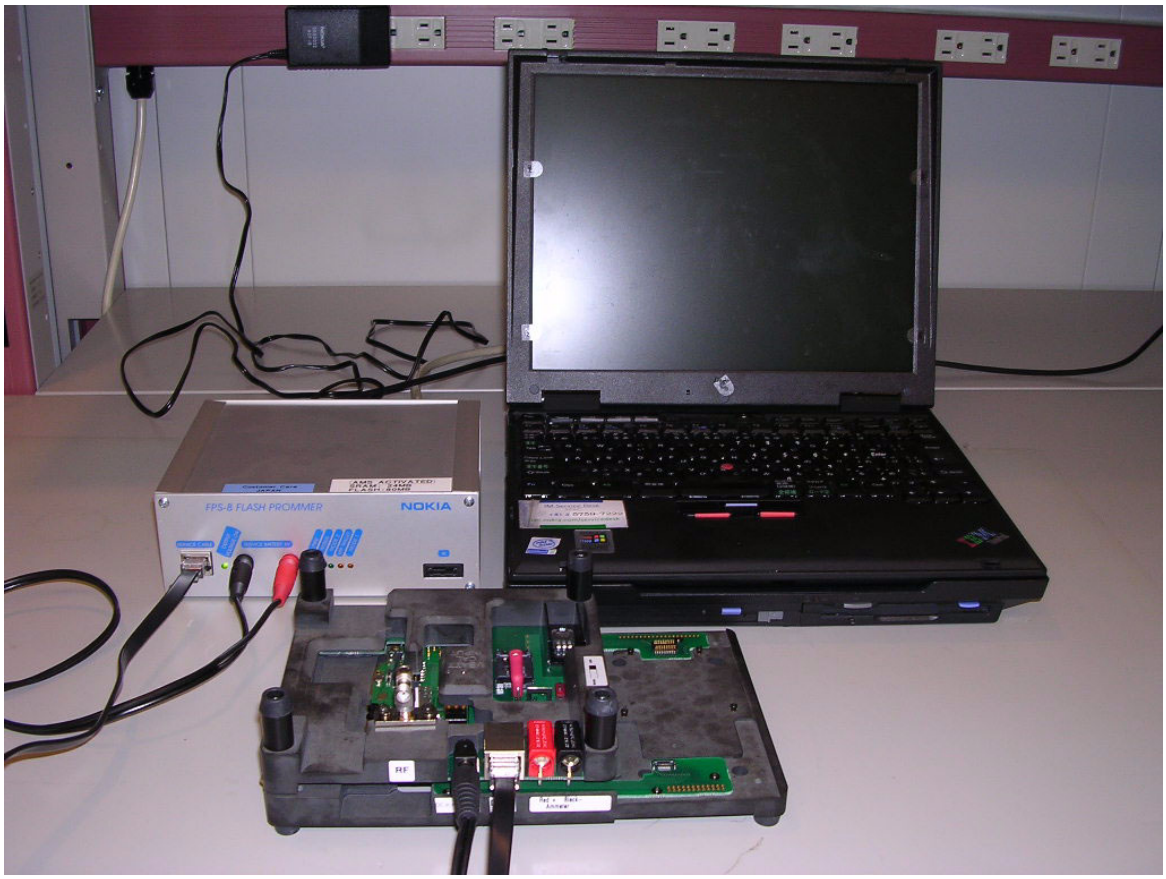
Module Jig Flash concept



Flashing with MJ-2 is recommended in Local Mode. The S2 switch should be set in the Passed position.

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The following equipment is required for NHL-10 AMS SW update when system module is placed in the Module Jig MJ-2 and connected through a FPS-8 set-up:

Item	Description	Type	Code
1	Module Jig	MJ-2	0770501
2	Power cable	PCS-1	0730012
3	Modular cable	XCS-4	0730178
4	Flash prommer box sales pack	FPS-8	0080321
5	Printer cable	AXP-8, incl in FPS-8 sales pack	
6	D9 – D9 cable	AXS-4, incl in FPS-8 sales pack	0730090
7	Software protection key	PKD-1	0750018
8	AC Charger,	AFC-8 incl in FPS-8 sales pack	0680032
9	SRAM Module (3 pcs needed inside FPS-8)	SF12	0080346 (Code includes one SRAM module)

Note: Zocus calibration can be performed with JBV-1/DA-2 and MJ-2 concept using the XRF12 RF cable. EM calibration can only be performed with JBV-1/DA-2.

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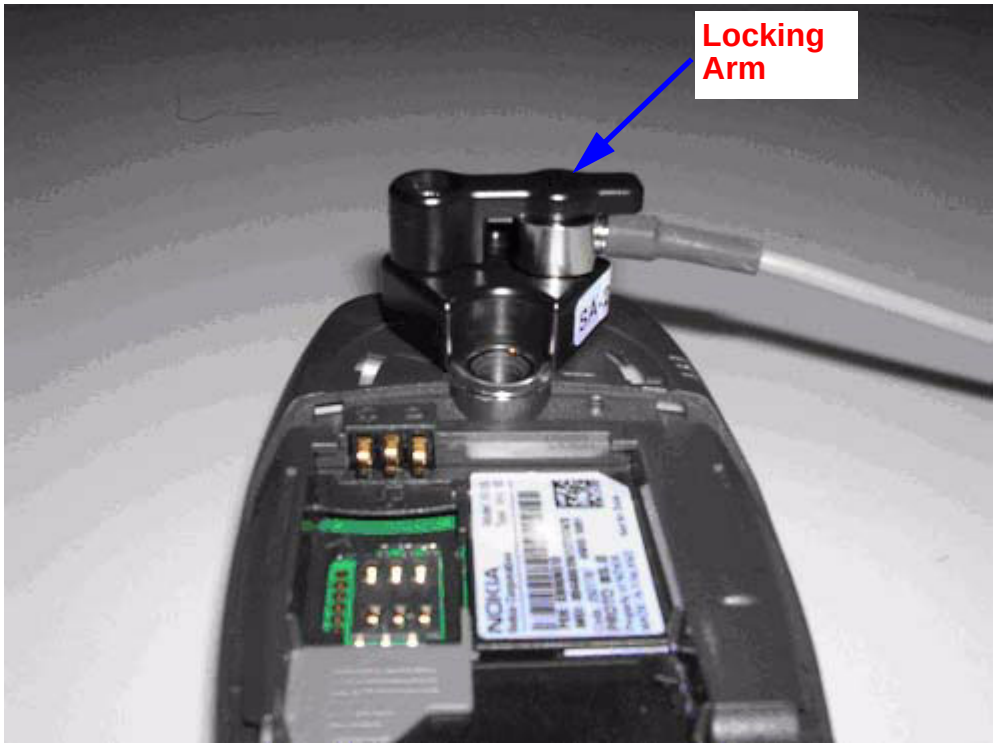
RF Tuning/Testing setup

RF tuning/testing setup with JBV-1, DA-2, SA-20 and XRS-11



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Connection Instructions:

1 Remove Camera Ornament from the phone.

2 Connect DA-2 to the phone.

3 Put XRS-11 on to DA-2.

4 Latch the XRS-11 with the locking arm of DA-2.

Disconnection Instructions:

1 Rotate the locking arm of DA-2.

2 Take XRS-11 from DA-2.

3 Disconnect DA-2 from the phone.

4 Put Camera Ornament on to the phone.

NHL-10 Phoenix installation instructions

Now that cables have been connected, you must install the NHL-10 version of Phoenix to your PC.

- 2003.15.2.25 is the first external released AMS Phoenix that supports 6600.
- Save the package to your hard disk and install it by doubleclicking it.

Note: It is recommended to uninstall the previous NHL-10 Phoenix package before installing the new one. Do it as follows:

- Click Start -> Settings -> Control Panel.
- Select Add/Remove Programs.
- Phoenix NHL-10 release.
- Select Add/Remove.

Reboot your computer after uninstallation.

FPS-8 to PC connection Setup instructions

Establish connection between your PC and FPS-8. The procedure is as follows:

- Start Phoenix.
- Choose File -> Manage connections.
- Choose Add.

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- Select Manual in select mode.
- As Media, select FPS-8.
- Port number, select the COM port where you have connected the serial cable of FPS-8, for example COM1.
- BIT_RATE, select a rate (115200 is the default one).
- COMBOX_DEF_MEDIA, select FBUS.
- Click Finish.
- Press the Arrow up key so that FPS8 COM1 FBUS becomes the first on the list.
- Press Apply and close the window.

The connection between PC and FPS-8 has now been configured.

FPS-8 activation

Follow the instructions inside FPS-8 sales pack to get FPS-8 activated.

Checking Application SW version inside FPS-8

When you have a connection established to FPS-8, and FPS-8 has been activated, the first thing to do is to check that you have the correct application SW version inside FPS-8. Phoenix SW can check that automatically. The procedure goes as follows:

Go to the partner web site and take newest AMS FPS-8 SW.

Instructions:

- Click Fps-8 downloads.
- Click Flash Update.
- Click AMS/Production version.
- Click 3.00.000 or newer one.
- Take file flash_update_03_00_000.exe.
- Save it to your hard drive to a place that you can remember.
- Go to that directory and click on flash_update_03_00_000.exe.

You will see the following note on your screen. Install files to the directory which the installation program suggests to you.

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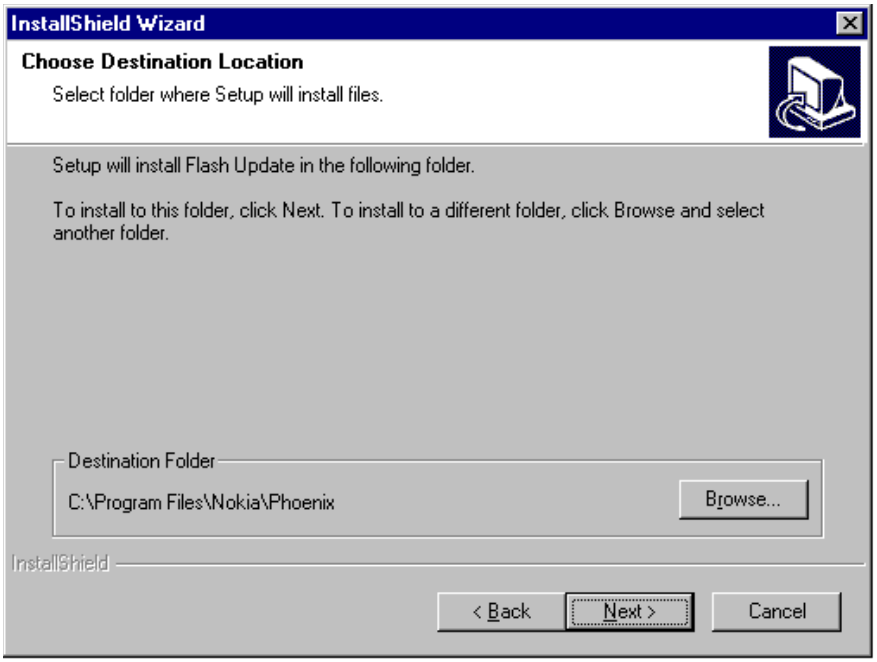
Figure 1: InstallShield Wizard screen


InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install Flash Update in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\Nokia\Phoenix
Browse...
InstallShield
< Back
Next >
Cancel

When the installation is finished, FPS-8 files are located in c:\Program Files\Nokia\Phoenix\Flash\.

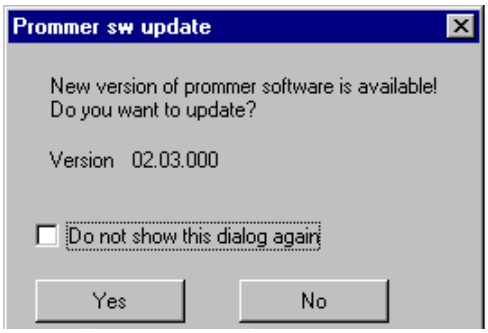
You can now start Phoenix SW.

When Phoenix SW has stared, do the following:

- Click on Flashing
- Click on FPS-8/FPS-8C Maintenance

If SW inside FPS-8 prommer is too old, you get the following notification:

Figure 2: Prommer SW update screen



Click **Yes** and you see on the small screen as the Prommer goes to service mode (mode2 is lit) SW goes into box, application SW, Secondary boot codes and algorithm codes are updated.

There is no longer need to do anything special with NHL-10 specific Secondary boot codes and algorithm codes.

Your PC and FPS-8 are now ready for the NHL-10 SW update.

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JBV-1 Docking Station SW

The JBV-1 Docking Station is a common tool for all DCT-4 generation products.

In order to make the JBV-1 usable with different phone models, a phone specific Docking Station Adapter is used for different service functions.

The JBV-1 Docking Station contains Software (Firmware) which can be updated.

You need the following equipment to be able to update JBV-1 software:

- PC with USB connection
- Operating System supporting USB (Not Win 95 or NT)
- USB Cable (Can be purchased from shops or suppliers providing PC hardware and accessories)
- JBV-1 Docking Station
- External Power Supply 11-16V

Before Installation

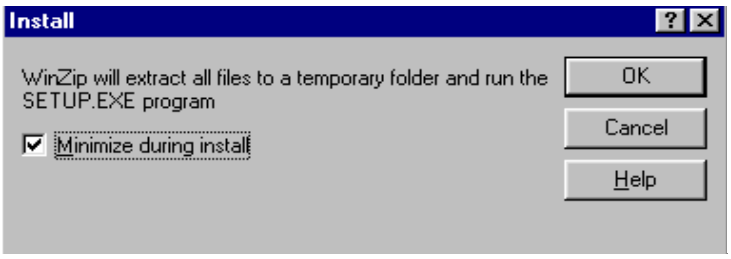
- Download *Jbv1_update.zip* – file to your computer (e.g. C:\TEMP) from your download web site.
- Close all other programs.
- Follow instructions on the screen.

Installing SW Needed for the JBV-1 SW Update

DO NOT CONNECT THE USB CABLE / JBV-1 TO YOUR COMPUTER YET!

Run *Jbv1_update.zip* file and start SW Installation by double clicking *Setup.exe.*

Files needed for the JBV-1 Package setup Program will be extracted.



Installation begins, please read the information shown and Choose **Next** to continue.

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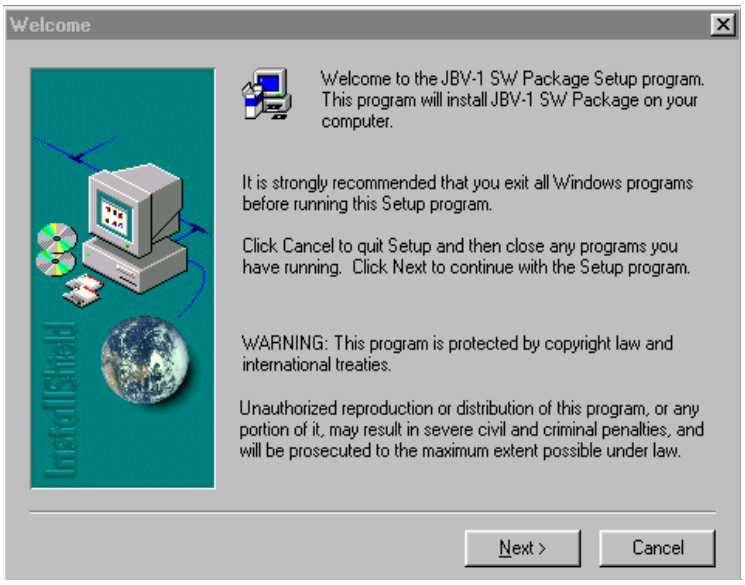
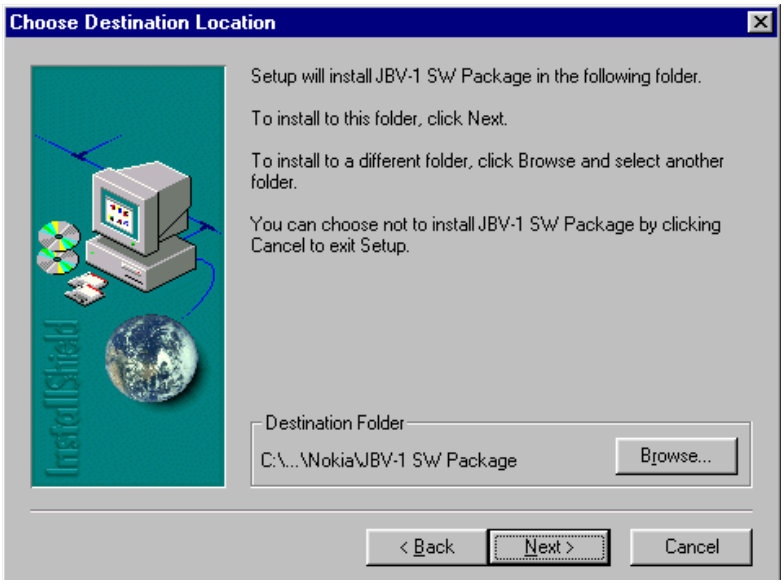

Welcome
Welcome to the JBV-1 SW Package Setup program. This program will install JBV-1 SW Package on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
InstallShield
Next >
Cancel

Use suggested destination folder where JBV-1 SW Package will be installed and

Choose **Next** to continue.


Choose Destination Location
Setup will install JBV-1 SW Package in the following folder.
To install to this folder, click Next.
To install to a different folder, click Browse and select another folder.
You can choose not to install JBV-1 SW Package by clicking Cancel to exit Setup.
Destination Folder
C:\...\Nokia\JBV-1 SW Package
Browse...
InstallShield
< Back
Next >
Cancel

Select **Full Installation** and choose **Next** to continue.

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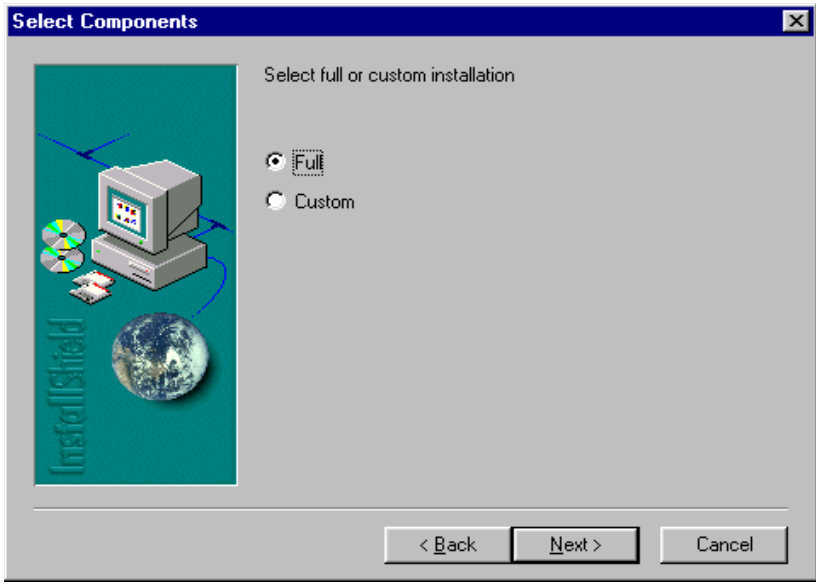
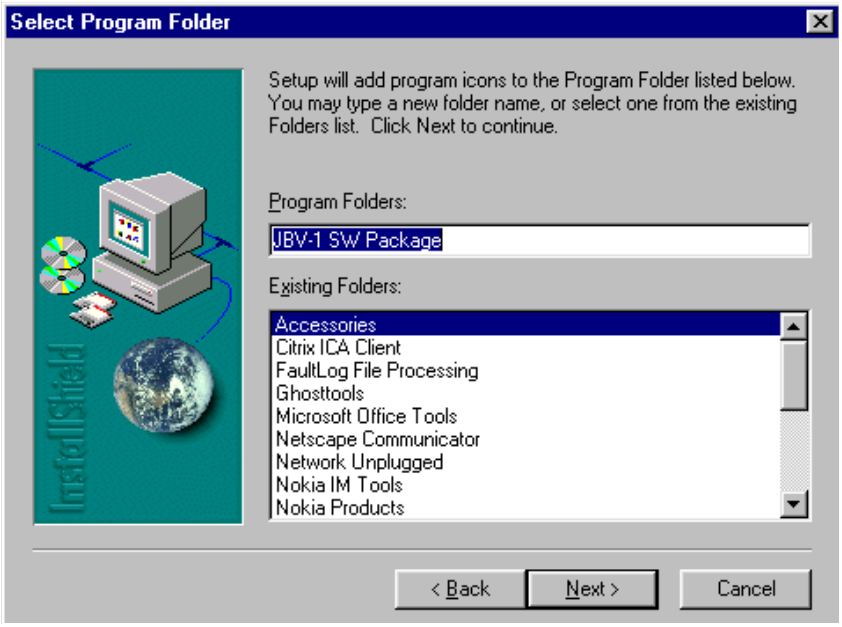


Program Folder will be created. Choose **Next** to continue, Software files will be installed.



After successful installation, choose **Finish** to complete.

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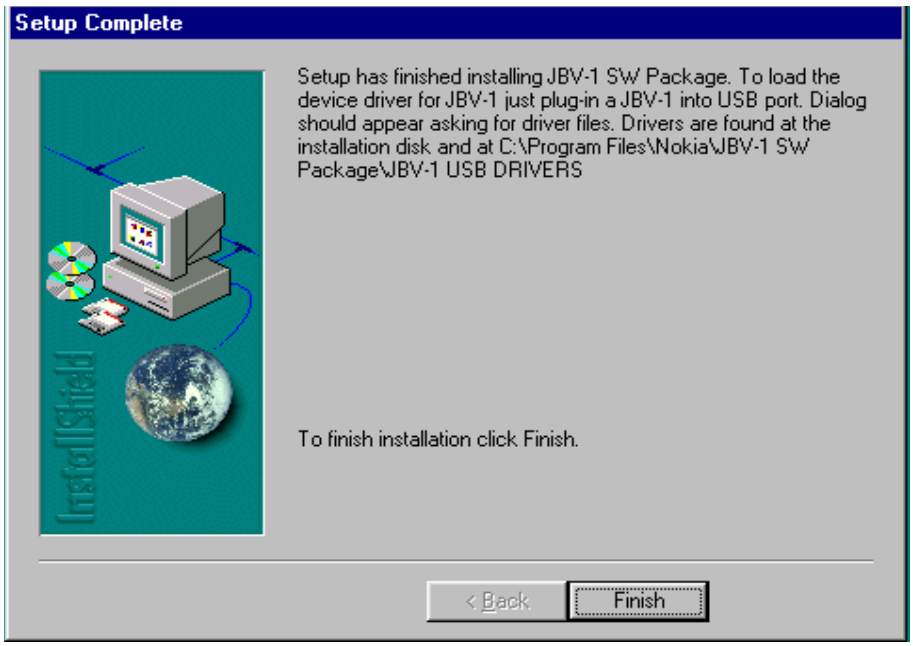
Setup Complete
Setup has finished installing JBV-1 SW Package. To load the device driver for JBV-1 just plug-in a JBV-1 into USB port. Dialog should appear asking for driver files. Drivers are found at the installation disk and at C:\Program Files\Nokia\JBV-1 SW Package\JBV-1 USB DRIVERS
To finish installation click Finish.
InstallShield
< Back
Finish

NOW YOU CAN CONNECT THE USB CABLE / JBV-1 TO YOUR COMPUTER!

Connect power to JBV-1 (11-16V DC) from an external power supply, then connect the USB Cable between JBV-1 USB connector and PC.

Windows will detect the connected USB cable and detect drivers for new HW. Please follow the instructions and allow Windows to search and install the best

Drivers available. After this procedure the actual JBV-1 SW update can begin.

Add New Hardware Wizard
This wizard searches for new drivers for:
USB Device
A device driver is a software program that makes a hardware device work.
< Back
Next >
Cancel

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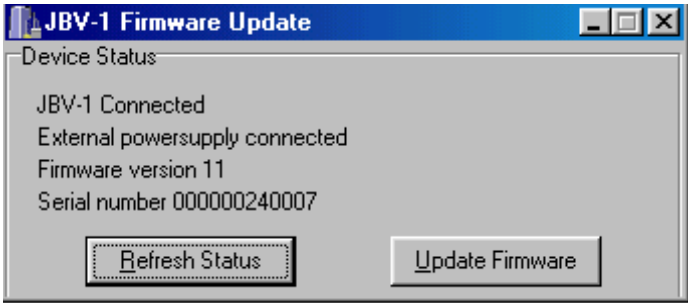
Updating the JBV-1 Docking Station Software

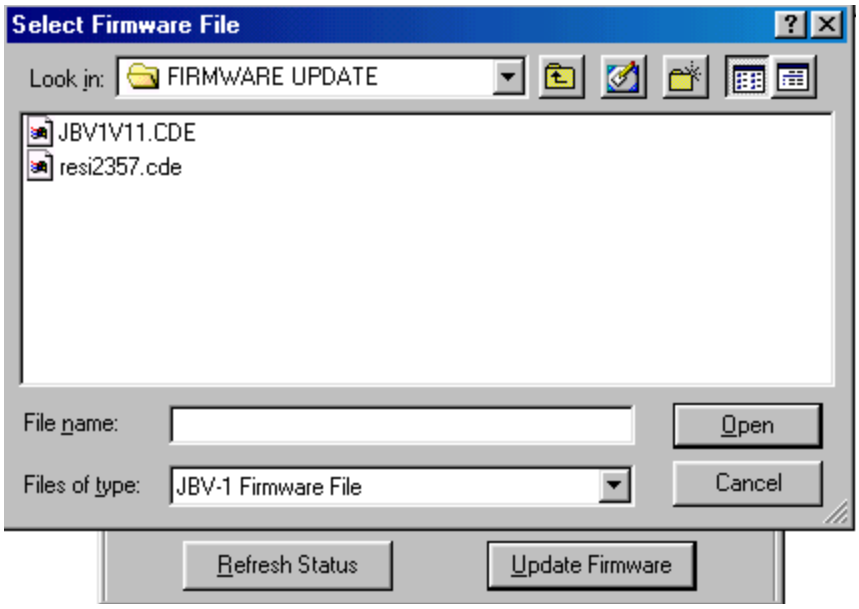
Go to folder *C:\Program Files\Nokia\ JBV-1 SW Package\ FIRMWARE UPDATE* and start the JBV-1 Update SW by double clicking *fwup.exe.*

The JBV-1 Firmware update starts and shows the current status of the JBV-1 connected.

If firmware version read from your JBV-1 is not the latest one available, it needs to be updated by choosing **Update Firmware**.



Choose file **JBV1v11.CDE** (example used here is for v 11) and **Open** to update your JBV-1.



After a successful update, the current JBV-1 status will be shown. You have now updated the software of your JBV-1 docking station and it is ready for use.

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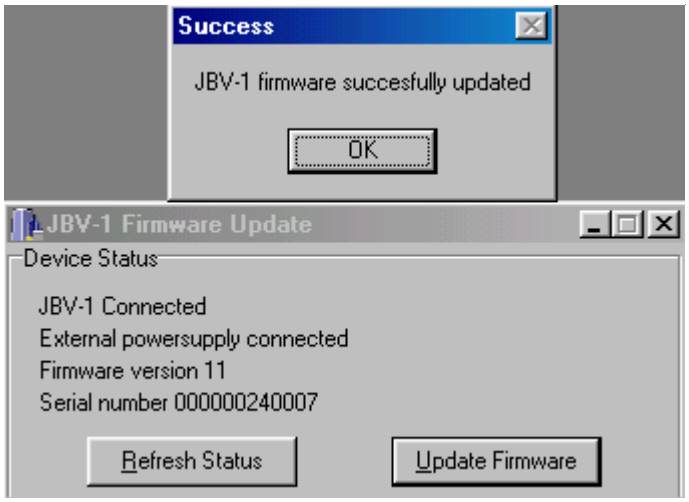

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Data Package for Phoenix (Product Specific)

Before installation

The Product Data Package contains all product specific data to make the Phoenix Service Software and tools usable with a certain phone model.

It also includes the latest version of flash update package for FLS-4* and FPS-8*

- Check that the Dongle is attached to the parallel port of your computer.
- Install Phoenix Service SW.
- Download the installation package (e.g. NHL-10_dp_v_1.00.exe) to your computer (e.g. C:\TEMP) .
- Close all other programs.
- Run the application file (e.g. NHL-10_dp_v_1.00.exe) and follow the instructions on the screen.

If you already have the Phoenix Service SW installed on your computer, sooner or later there will be need to update it when new versions are released.

Please note that very often the Phoenix Service SW and the Phone Specific Data Package for Phoenix come in pairs, meaning that certain version of Phoenix can only be used with certain version of Data Package. Always use the latest available versions of both. Instructions can be found in phone model specific Technical Bulletins.

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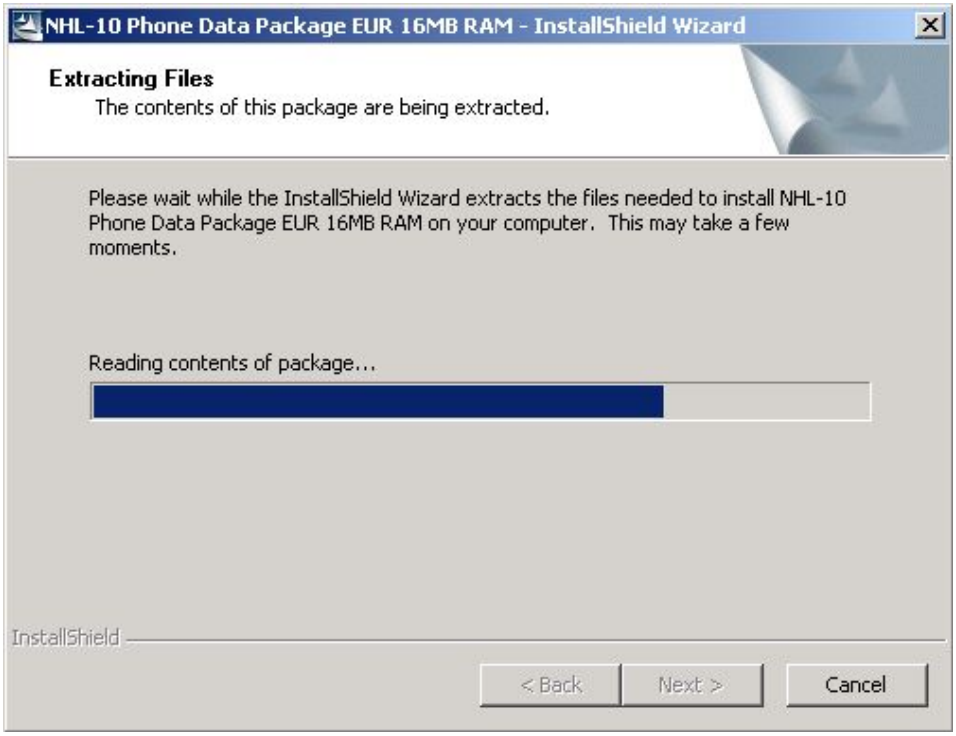
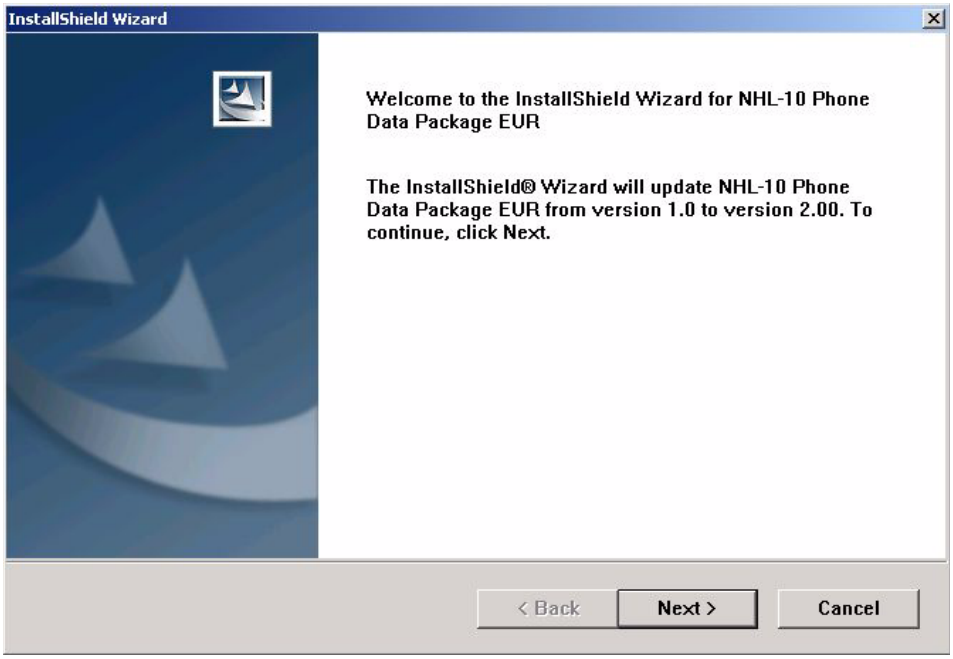
Installation of Phoenix Data Package (Product Specific)

Run the NHL-10_dp_v_1.00.exe to start installation.

When you choose **Next** the files needed for installation will be extracted. Please wait.


NHL-10 Phone Data Package EUR 16MB RAM - InstallShield Wizard
Extracting Files
The contents of this package are being extracted.
Please wait while the InstallShield Wizard extracts the files needed to install NHL-10 Phone Data Package EUR 16MB RAM on your computer. This may take a few moments.
Reading contents of package...
InstallShield
< Back
Next >
Cancel

Choose **Next** to continue.


InstallShield Wizard
Welcome to the InstallShield Wizard for NHL-10 Phone Data Package EUR
The InstallShield® Wizard will update NHL-10 Phone Data Package EUR from version 1.0 to version 2.00. To continue, click Next.
< Back
Next >
Cancel

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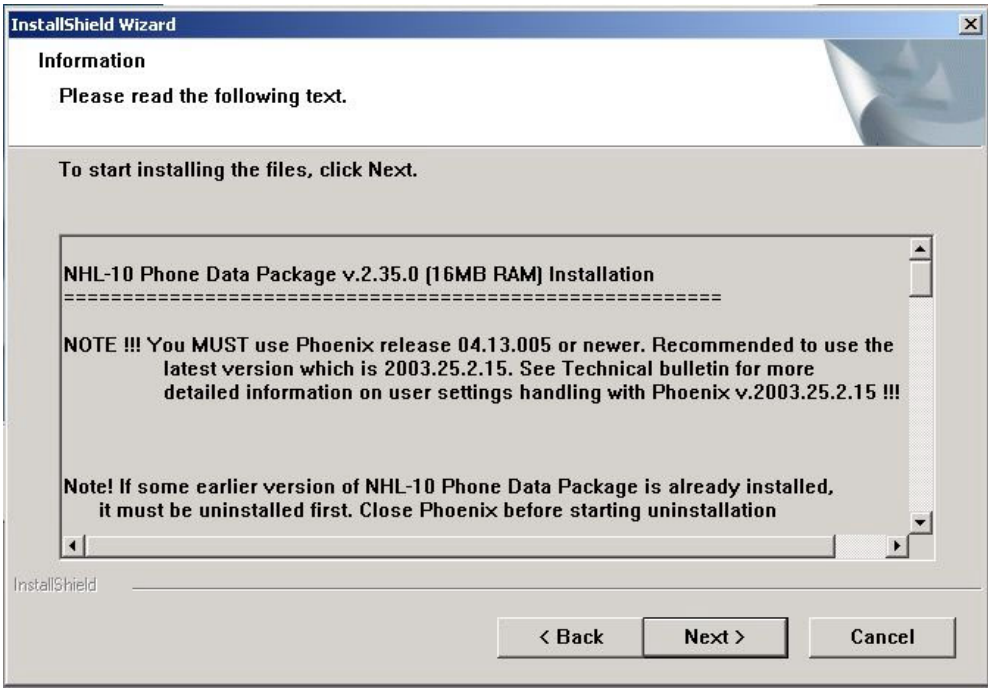
In this view, you can see the contents of the Data Package.

Read the text carefully.

There should be information about the Phoenix version needed with this data package.

Choose **Next**.


InstallShield Wizard
Information
Please read the following text.
To start installing the files, click Next.
NHL-10 Phone Data Package v.2.35.0 (16MB RAM) Installation
NOTE !!! You MUST use Phoenix release 04.13.005 or newer. Recommended to use the latest version which is 2003.25.2.15. See Technical bulletin for more detailed information on user settings handling with Phoenix v.2003.25.2.15 !!!
Note! If some earlier version of NHL-10 Phone Data Package is already installed, it must be uninstalled first. Close Phoenix before starting uninstallation
InstallShield
< Back
Next >
Cancel

Confirm location and choose **Next** to continue.

The Install Shield checks where the Phoenix application is installed and the directory is shown.

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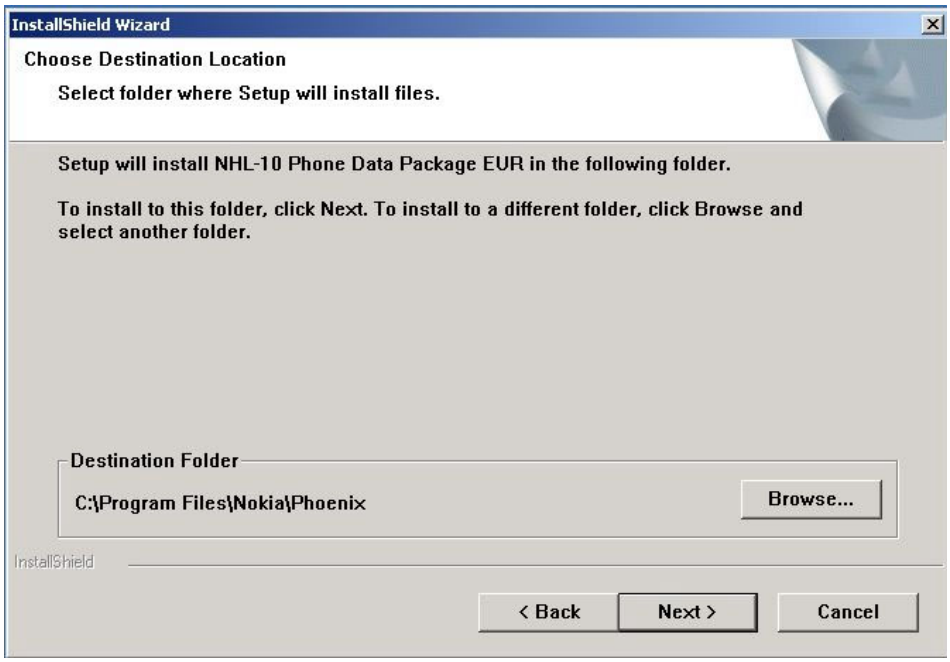
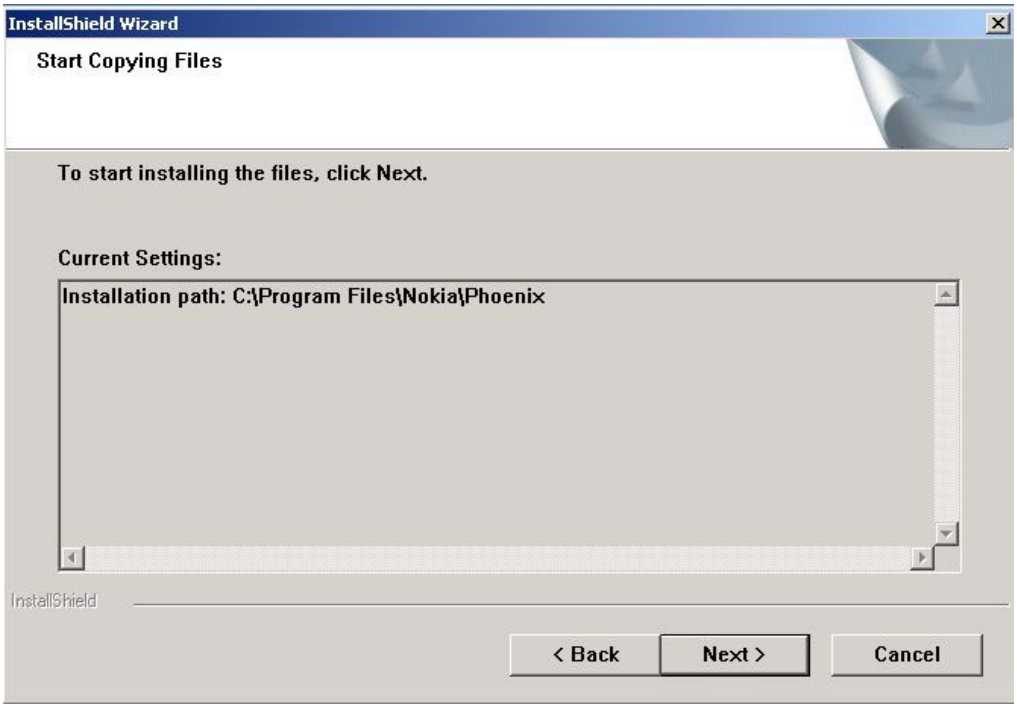

InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install NHL-10 Phone Data Package EUR in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\Nokia\Phoenix
Browse...
InstallShield
< Back
Next >
Cancel

Choose **Next** to continue.



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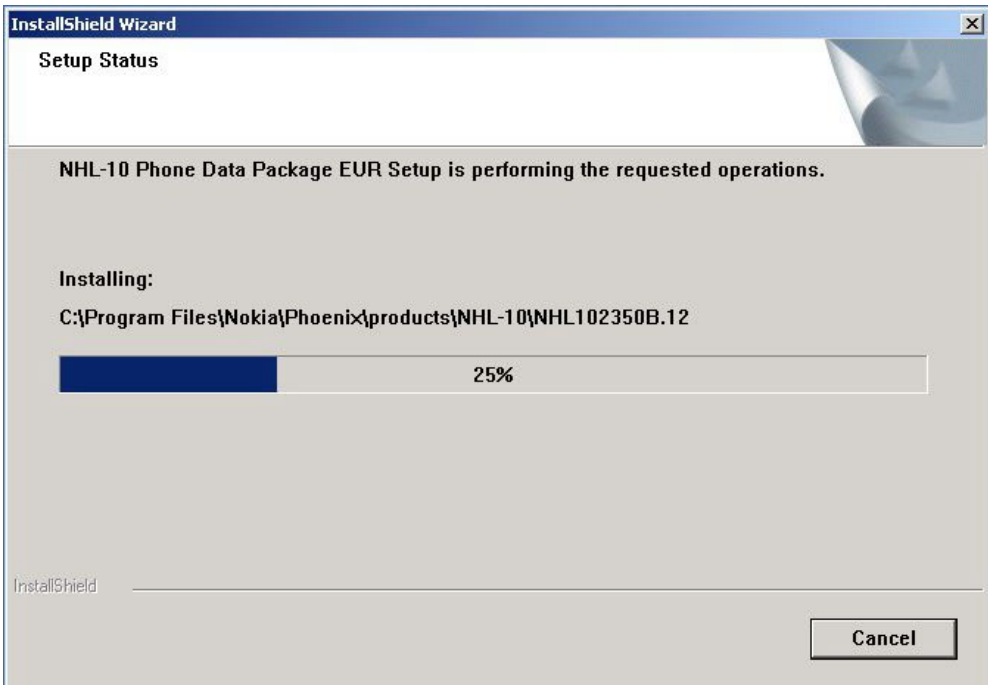
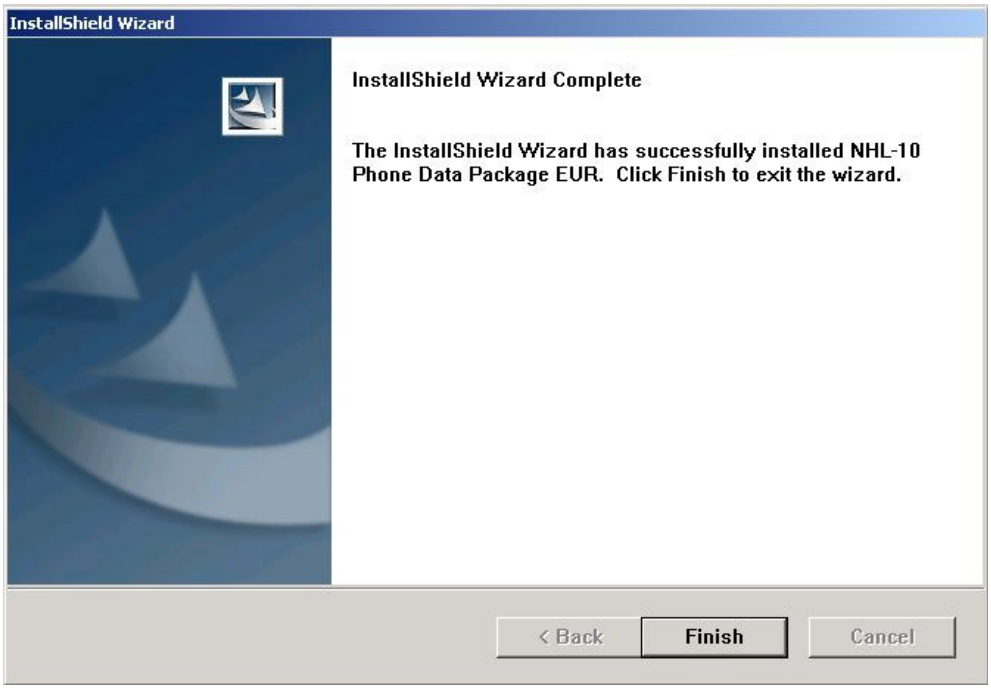
Phone model specific files will be installed... please wait.



Choose **Finish** to complete the installation.


InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed NHL-10 Phone Data Package EUR. Click Finish to exit the wizard.
< Back
Finish
Cancel

You now have all phone model specific files installed in your Phoenix Service SW.

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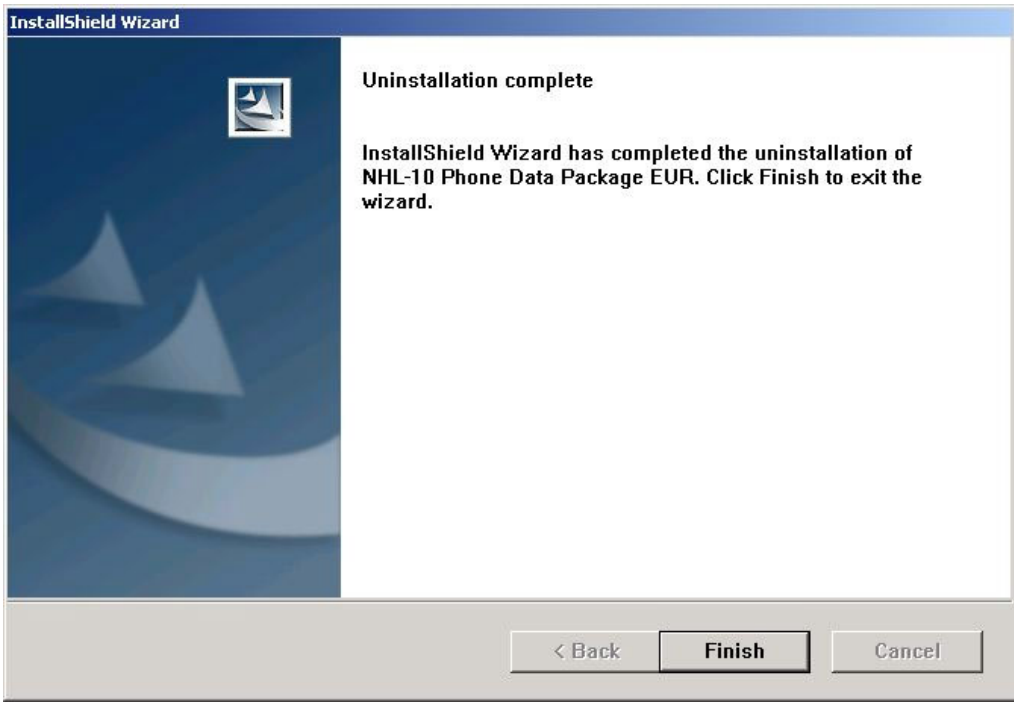
How to Uninstall Data Package

Uninstallation can also be done manually from Windows Control Panel / Add / Remove Programs/ “NHL-10 Phone Data Package”.

If you try to install the same version of Phoenix Data Package that you already have, you are asked if you want to uninstall the version you have on your PC. Answer **OK** to uninstall, **Cancel** if you don’t want to uninstall. Older versions of data packages do not need to be uninstalled.

Uninstall NHL-10 Phone Data Package EUR
Do you want to completely remove the NHL-10 Phone Data Package EUR application and all of its components?
OK
Cancel

Once the previously installed Data package is uninstalled, choose **Finish**.


InstallShield Wizard
Uninstallation complete
InstallShield Wizard has completed the uninstallation of NHL-10 Phone Data Package EUR. Click Finish to exit the wizard.
< Back
Finish
Cancel

Run the NHL-10_dp_v_1.00.exe again to continue installation from the beginning.

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Reprogramming NHL-10

Connecting cables

Once you have the NHL-10 opened and the battery and SIM removed, attach it to the SF-2 adapter. Once connected to the SF-2 the phone goes to local mode and the screen will not show anything during SW update.

Proceed as follows:

- Connect XCS-4 cable from SF-2 to FPS-8
- Connect FLC-2 cable from FPS-8 to SF-2
- There is no need to press the phone power key. Phone has set itself automatically to local mode and it is now ready for SW update.

Settings backup/restore

It is quicker to use MMC user data backup, which can be found at: **Menu -> Extras -> Memory -> Options -> Backup phone memory**.

Start Phoenix SW by double-clicking the **Phoenix icon** on your desktop.

- Choose File->Manage Connections.
- Click FPS-8 COM1 FBUS.
- Click Apply, and then close the dialog.
- Choose File->Scan Product. If the phone is ok, you should see the SW version in lower right-hand corner, for example V1.31.0.
- If the scanning finds nothing, the phone is most likely in a strange mode.

Settings Backup:

- Click Product.
- Click User settings.
- Click All Settings.
- Click Browse.
- Choose from Directory C:\Program files\Nokia\Phoenix\Products\NHL-10\NHL_10.ini.

You will now see the following PC screen:

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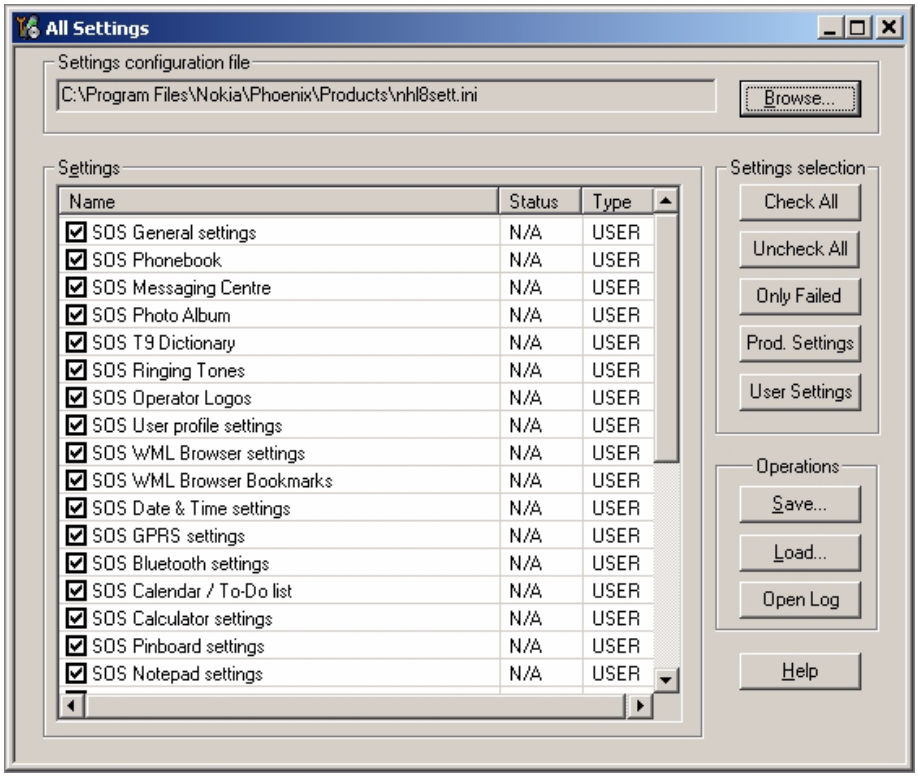
Figure 3: All settings screen



Updating software

New SW package can be updated.

- Choose Flashing -> FPS-8 Flash -> Choose Restore User Phone or Phone as Manufactured -> Uncheck Manual File Selection. Then Click on Flash.
- Now in Flash file selection window, choose the product code.

Select the correct file:

Now click **OK**, and SW update starts.

You will see as the 18 MB package goes into FPS-8 (If transfer is very slow, it is recommended that Parallel port is in ECP mode. Transfer in ECP mode is much faster).

If you do not know how to change the PC Parallel port mode from BIOS, contact your local support.

Then Phoenix erases flash memories.

Finally, you will see how the SW package goes into phone (When SW update takes place, Yellow Mode 1 led is blinking fast).

When SW update has ended, the yellow led stops blinking and you get a note in windows SW. You will get instructions to turn the phone on. Do so and wait for 15 seconds.

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Formatting user area

The user area also needs to be formatted in order to make sure that there is no user data left in the phone.

Choose **File** -> **Scan product.** In the bottom of the Phoenix window you should see V3.1, Date, NHL-10(c) NMP.

Format User area the following way:

Click **Product** -> **User area format**. You will get a note warning you about loss of user data. Click **yes** to proceed.

Phoenix shows the **Formatting user data area, please wait** screen for a while and gives you a success message.

Restore settings

Settings can be restored from MMC or Phoenix.

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